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09/476,461	12/30/1999	JOHN LAWRENCE SNAPP	AWS455	7881

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EXAMINER	
APPIAH, CHARLES NANA	
ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/476,461	SNAPP, JOHN LAWRENCE	
	Examiner	Art Unit	
	Charles Appiah	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 May 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on May 30, 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "temporary transfer-to-telephone numbers may be dynamically assigned to roaming units, " and a temporary transfer-to number "is a call forwarding number that is used in an intermediate and temporary fashion between the subscriber telephone number and the call forwarding number associated with the subscriber unit") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Inasmuch as Azer uses an iterative search in an attempt to establish the call using the appropriate region code with the same ship identification number, examiner maintains that the use of the appropriate region identification in conjunction with the same ship identification number meets the limitation of a temporary transfer-to-number this facilitates the forwarding of a call to a roaming unit based on stored numbers (namely the ship identification numbers indicating where the subscriber unit can be reached). Applicant's arguments appear to be more narrow than the invention as claimed.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the evidence for a reasonable expectation of success can be found in the teaching of Azer in suggesting that the invention is applicable to mobile systems other than maritime and can be applied to systems using land-based transmitter-receiver stations as set forth in the rejections, and hence since Hauser teaches call forwarding to a subscriber roaming between two dissimilar wireless systems, combining the teachings of Hauser and Azer would reasonably meet the invention as claimed –namely the use of temporary stored numbers to reach a roaming mobile unit within a communication system.

In view of the above, the combination of Hauser in view of Azer in rejecting claims 1-21 as well Houde in view of Azer (claims 1, 8, 15 and 19) are proper and maintained as repeated below. These rejections are made FINAL.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hauser et al. (5,734,700)** in view of **Azer (5,481,592).**

Regarding claim 1, Hauser discloses a subscriber unit roaming between two dissimilar wireless systems (USA, EUROPE, Fig. 1). Hauser shows a bridgehead (11) for linking the two mobile communication systems, with the bridgehead operating as an internetwork junction (functionality of mobility gateway) for assigning calling numbers by call forwarding in a first communication network (GSM) a calling number which can be reached through a transition network, as well as a gateway mobile services switching center (see col. 1, line 46 to col. 2, line 36).

Hauser fails to explicitly teach storing a plurality of temporary transfer-to telephone numbers, and selecting, for association with the roaming subscriber unit, one of the temporary transfer-to telephone numbers.

In an analogous field of endeavor, Azer discloses a method for completing calls to mobile telephone subscribers through a gateway switch (see abstract, figures 1-2). According to Azer each gateway switch is provided with a local database which stores the identity of ships in a region and when a call arrives at a gateway switch for a ship a determination is made as to whether the ship is stored within the database and if it is then the call is completed normally but if not then the call is tried to each of the other regions (see col. 1, line 62 to col. 2, line 15, col. 3, line 49 to col. 4, line 18), suggesting the forwarding of a call to a roaming mobile unit based on stored numbers. Azer is very pertinent art since Azer suggests that the invention is applicable to mobile systems other than maritime and can be applied to systems using land-based transmitter-receiver stations (see col. 2, lines 25-35, col. 5, lines 19-30).

It would therefore have been obvious to one of ordinary skill in the art to use the gateway switch having a database storing numbers for call forwarding as taught by Azer in the system of Hauser in order to complete calls to mobile subscribers roaming in different communication systems.

Regarding claim 2, the combination of Hauser and Azer would show that that the temporary transfer-to number is homed on a MSC different from a MSC serving the roaming subscriber unit as taught by Azer (see gateway switch 110, Fig. 1).

Regarding claim 3, the combination of Hauser and Azer shows sending a message having the temporary transfer-to telephone number to a MSC serving the roaming subscriber unit as taught by Azer in automatically retrying the call to each of the other regions in a predetermined order when the call cannot be completed initially (see abstract).

Regarding claims 4-6, Hauser does not specifically show the location information. Azer further teaches that the database is constantly updated in order to keep track of the ship's location each time a call is made from the ship (see col. 2, lines14-20), suggesting the use of location information in routing calls to mobile subscribers.

It would therefore have been obvious to one of ordinary skill in the art to provide for the storing of updated location information on mobile subscribers as well as the sending and receiving of location request messages in order to keep track and facilitate the routing of calls in a more efficient manner in the system of Hauser as modified by Azer.

Regarding claim 7, the combination of Hauser and Azer meets the limitation of after associating, sending a redirection message to a gateway mobile switching center which

received the call request as taught by Hauser in directing a caller to an associated voicemail bin and by Azer in trying one of the other region codes until the call is completed (see col. 3, line 64 to col. 4, line 7).

Regarding claim 8, Hauser shows ANSI-41 based network (see USA mobile communication system), GSM-based network (Europe), a memory for storing telephone numbers (HLR, VLR). Hauser fails to explicitly teach storing a plurality of temporary transfer-to telephone numbers homed on one or more MSCs and a processor, which is operative for selecting one of the plurality of temporary transfer-to telephone numbers for association with a roaming subscriber unit.

In an analogous field of endeavor, Azer discloses a method for completing calls to mobile telephone subscribers through a gateway switch (110) having a processor (112), (see abstract, Figures 1-2). According to Azer each gateway switch is provided with a local database which stores the identity of ships in a region and when a call arrives at a gateway switch for a ship a determination is made as to whether the ship is stored within the database and if it is then the call is completed normally but if not then the call is tried to each of the other regions (see col. 1, line 62 to col. 2, line 15, col. 3, line 49 to col. 4, line 18), suggesting the forwarding of a call to a roaming mobile unit based on stored numbers. Azer is very pertinent art since Azer suggests that the invention is applicable to mobile systems other than maritime and can be applied to systems using land-based transmitter-receiver stations (see col. 2, lines 25-35, col. 5, lines 19-30).

It would therefore have been obvious to one of ordinary skill in the art to use the gateway switch having a database storing numbers for call forwarding as taught by

Azer in the system of Hauser in order to complete calls to mobile subscribers roaming in different communication systems by being able to select a telephone number for the roaming subscriber unit.

Regarding claims 9-14, with the modification above, the roaming subscriber unit would be capable of roaming into the GSM-based network. These claims are therefore further interpreted and rejected for the same reasons as set forth in the rejections of claims as described above.

Claims 15-21 are interpreted and rejected for the same reasons as set forth in the rejection of the combined claims as described above.

4. Claims 1, 8, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Houde et al. (5,978,678)** in view of **Azer (5,481,592)**.

Regarding claims 1, 8, 15, and 19 Houde discloses as illustrated in Fig. 1, an IGW (50) for connecting at least of the switching nodes in a first country cellular network (12) with at least one of the switching nodes of the second country cellular network (see col. 4, lines 3-13). Houde teaches the gateway being for connection between an ANSI-based network (Canada) and a GSM-based network (France), including receiving and storing information related to a call request for a roaming subscriber unit (see col. 6, lines 5-17), receiving a location request message for ma mobile switching center which homes information associated with the roaming subscriber unit and associating the location request message with the call request for the roaming subscriber unit (see col. 6, lines 18-46), and after associating, sending a

redirection request message to a gateway mobile switching center which received the call request for the roaming subscriber unit (see col. 6, lines 46-53).

Hauser fails to explicitly teach storing a plurality of temporary transfer-to telephone numbers homed on one or more MSCs and a processor, which is operative for selecting one of the plurality of temporary transfer-to telephone numbers for association with a roaming subscriber unit.

In an analogous field of endeavor, Azer discloses a method for completing calls to mobile telephone subscribers through a gateway switch (110) having a processor (112), (see abstract, Figures 1-2). According to Azer each gateway switch is provided with a local database which stores the identity of ships in a region and when a call arrives at a gateway switch for a ship a determination is made as to whether the ship is stored within the database and if it is then the call is completed normally but if not then the call is tried to each of the other regions (see col. 1, line 62 to col. 2, line 15, col. 3, line 49 to col. 4, line 18), suggesting the forwarding of a call to a roaming mobile unit based on stored numbers. Azer is very pertinent art since Azer suggests that the invention is applicable to mobile systems other than maritime and can be applied to systems using land-based transmitter-receiver stations (see col. 2, lines 25-35, col. 5, lines 19-30).

It would therefore have been obvious to one of ordinary skill in the art to use the gateway switch having a database storing numbers for call forwarding as taught by Azer in the system of Houde in order to complete calls to mobile subscribers roaming in

different communication systems by being able to select a telephone number for the roaming subscriber unit.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703 305-6739. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9314 for regular communications and 703 308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4750.

Charles Appiah
July 15, 2003

CHARLES APPIAH
PRIMARY EXAMINER